

Applicant : Robert Ayers and Richard L. Sites
Serial No. : 09/635,999
Filed : August 9, 2000
Page : 2 of 11

Attorney's Docket No.: 07844-366001 / P341

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.-68. (Cancelled)

69. (New) A computer program product, tangibly stored on a computer-readable medium, for reflowing a page, the product comprising instructions operable to cause a programmable processor to:

receive a page represented in a page description language, the page including a column of text having a width and a length, the page further including a graphical element having a vertical position on the page, adjacent to a vertical side of and outside the column, wherein an item of text in the column and the graphical element have a spatial relationship in that the item has a vertical position corresponding to the vertical position of the graphical element;

change the size of the text, the width of the column, or both so that the relationship between a size of the text and the width of the column is changed, and then reflow text in the column so that the item of text has a new vertical position as a result of the reflow; and

reposition the graphical element on the page according to the new vertical position of the item of text.

Applicant : Robert Ayers and Richard L. Sites
Serial No. : 09/635,999
Filed : August 9, 2000
Page : 3 of 11

Attorney's Docket No.: 07844-366001 / P341

70. (New) The product of claim 69, wherein the graphical element has a vertical extent defined by an upper vertical position and a lower vertical position, the vertical position of the item corresponds to the upper vertical position, and the item is a first item, the product further comprising instructions to:

associate a second item of text in the column with the graphical element, the second item having, before the reflow, a vertical position corresponding to the lower vertical position, the second item having a new vertical position as a result of the reflow; and

scale the graphical element, the scaling being based on the new vertical position of the first item and the second item.

71. (New) The product of claim 70, wherein instructions to scale include instructions to scale in the vertical direction.

72. (New) The product of claim 70, further comprising:

define a map that indicates a change in vertical positions of the first and second items, the change resulting from the reflow, the map indicating pre-reflow and post-reflow vertical positions of the first and second items.

Applicant : Robert Ayers and Richard L. Sites
Serial No. : 09/635,999
Filed : August 9, 2000
Page : 4 of 11

Attorney's Docket No.: 07844-366001 / P341

73. (New) The product of claim 69, wherein the column of text is a first column of text, the item in the first column is a first item, and the page includes an additional one or more columns of text positioned side-by-side with the first column, the product further comprising instructions to:

for each of the additional columns, associate an item of text in the additional column with the graphical element, the item having a vertical position corresponding to the vertical position of the graphical element;

for each of the additional columns, change the size of the text, the width of the column, or both so that the relationship between a size of the text and the width of the column is changed, and then reflow text in the column so that the item has a new vertical position as a result of the reflow;

for each item associated with the graphical element, calculate a change in vertical position resulting from the reflow; and

reposition the graphical element on the page according to the new vertical position of the item having the greatest change in vertical position.

74. (New) The product of claim 73, further comprising instructions to:
identify columns that are positioned top-to-bottom and separated by line art as separate columns when reflowing text.

75. (New) The product of claim 69, further comprising instructions to:
insert a hyphen at the end of a line of text when the word at the end was separated by reflow and there is a soft hyphen at the position where the hyphen is to be insert; and
maintain a hyphen in a word when the word is no longer separated.

76. (New) The product of claim 69, further comprising instructions to:
replicate ligatures when reflowing text.

Applicant : Robert Ayers and Richard L. Sites
Serial No. : 09/635,999
Filed : August 9, 2000
Page : 5 of 11

Attorney's Docket No.: 07844-366001 / P341

77. (New) The product of claim 69, wherein:
the graphical element is line art.

78. (New) The product of claim 69, wherein:
the item of text is one of a character and a word.

79. (New) A method for reflowing a page, comprising:
receiving a page represented in a page description language, the page including a column
of text having a width and a length, the page further including a graphical element having a
vertical position on the page, adjacent to a vertical side of and outside the column, wherein an
item of text in the column and the graphical element have a spatial relationship in that the
item of text has a vertical position corresponding to the vertical position of the graphical
element;

changing the size of the text, the width of the column, or both so that the relationship
between a size of the text and the width of the column is changed, and then reflow text in the
column so that the item of text has a new vertical position as a result of the reflow; and

repositioning the graphical element on the page according to the new vertical position of
the item of text.

80. (New) The method of claim 79, wherein the graphical element has a vertical
extent defined by an upper vertical position and a lower vertical position, the vertical position
of the item corresponds to the upper vertical position, and the item is a first item, the method
further comprising:

associating a second item of text in the column with the graphical element, the second
item having, before the reflow, a vertical position corresponding to the lower vertical
position, the second item having a new vertical position as a result of the reflow; and

scaling the graphical element, the scaling being based on the new vertical position of the
second item.

Applicant : Robert Ayers and Richard L. Sites
Serial No. : 09/635,999
Filed : August 9, 2000
Page : 6 of 11

Attorney's Docket No.: 07844-366001 / P341

81. (New) The method of claim 80, wherein scaling includes scaling in the vertical direction.

82. (New) The method of claim 80, further comprising:
defining a map that indicates a change in vertical positions of the first and second items of text, the change resulting from the reflow, the map indicating pre-reflow and post-reflow vertical positions of the first and second items.

83. (New) The method of claim 79, wherein the column of text is a first column of text, the item in the first column is a first item, and the page includes an additional one or more columns of text positioned side-by-side with the first column, the method further comprising:

for each of the additional columns, associating an item of text in the additional column with the graphical element, the item having a vertical position corresponding to the vertical position of the graphical element;

for each of the additional columns, changing the size of the text, the width of the column, or both so that the relationship between a size of the text and the width of the column is changed, and then reflowing text in the column so that the item has a new vertical position as a result of the reflow;

for each item associated with the graphical element, calculating a change in vertical position resulting in the reflow; and

repositioning the graphical element on the page according to the new vertical position of the item having the greatest change in vertical position.

84. (New) The method of claim 83, further comprising:
identifying columns that are positioned top-to-bottom and separated by line art as separate columns when reflowing text.

Applicant : Robert Ayers and Richard L. Sites
Serial No. : 09/635,999
Filed : August 9, 2000
Page : 7 of 11

Attorney's Docket No.: 07844-366001 / P341

85. (New) The method of claim 79, further comprising:
inserting a hyphen at the end of a line of text when the word at the end was separated by
reflow and there is a soft hyphen at the position where the hyphen is to be insert; and
maintaining a hyphen in a word when the word is no longer separated.

86. (New) The method of claim 79, further comprising:
replicating ligatures when reflowing text.

87. (New) The method of claim 79, wherein:
the graphical element is line art.

88. (New) The method of claim 79, wherein:
the item of text is one of a character and a word.